

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
Wireless Telecommunications Bureau and)	WT Docket No. 19-250
Wireline Competition Bureau Seek)	
Comment on WIA Petition for)	RM-11849
Rulemaking, WIA Petition for Declaratory)	
Ruling, and CTIA Petition for Declaratory)	
Ruling)	
)	
Accelerating Wireline Broadband)	WC Docket No. 17-84
Deployment by Removing Barriers to)	
Infrastructure Investment)	

**COMMENTS OF ACT | THE APP ASSOCIATION IN SUPPORT OF WIA AND CTIA'S
PETITIONS**

ACT | The App Association (App Association) respectfully submits the following comments to the Federal Communications Commission (FCC or Commission) regarding the above-captioned proceeding.¹ The App Association expresses its support for all three petitions² at issue, which, if the Commission acts on them, would accelerate the deployment of 5G infrastructure and television white space (TVWS)-enabled broadband in rural areas.

¹ *In the Matter of Wireless Telecommunications Bureau and Wireline Competition Bureau Seek Comment on WIA Petition for Rulemaking, WIA Petition for Declaratory Ruling, and CTIA Petition for Declaratory Ruling*, Public Notice, WT Docket No. 19-250, *et al.* (2019). Available at <https://docs.fcc.gov/public/attachments/DA-19-913A1.pdf>.

² Wireless Infrastructure Association (WIA) Petition for Rulemaking (filed Aug. 27, 2019); [https://ecfsapi.fcc.gov/file/108273047516225/WIA%20Petition%20for%20Rulemaking%20\(8-27-19\).pdf](https://ecfsapi.fcc.gov/file/108273047516225/WIA%20Petition%20for%20Rulemaking%20(8-27-19).pdf) (WIA Rulemaking Petition); WIA Petition for Declaratory Ruling (filed Aug. 27, 2019), [https://ecfsapi.fcc.gov/file/10827091727851/WIA%20Petition%20for%20Declaratory%20Ruling%20\(8-27-19\).pdf](https://ecfsapi.fcc.gov/file/10827091727851/WIA%20Petition%20for%20Declaratory%20Ruling%20(8-27-19).pdf) (WIA Declaratory Ruling Petition); CTIA Petition for Declaratory Ruling (filed September 6, 2019), <https://ecfsapi.fcc.gov/file/10906760521179/190906%20CTIA%20Infrastructure%20PDR%20Final.pdf> (CTIA Petition).

The App Association represents approximately 5,000 small business software application development companies and technology firms that drive the internet of things (IoT) market. Today, the App Association represents an ecosystem valued at approximately \$1.3 trillion and is responsible for 5.7 million American jobs.³ App Association members, enabled by strong broadband connectivity, create innovative solutions that power IoT across almost every sector of the economy. However, there are still swaths of the country without fast, reliable broadband—a phenomenon commonly referred to as the “digital divide.”

The Commission will play an integral role in closing the digital divide, and the App Association is committed to assisting it in this effort. Although the Commission has made strides in getting more people connected,⁴ further improvements to the Commission’s frameworks are needed. We believe that this proceeding presents the Commission with an opportunity to promote the deployment of needed broadband infrastructure. This proceeding is particularly important for stakeholders deploying TVWS technology and 5G networks that will support our members’ IoT products and services. Thus, providing the relief sought in each of the petitions will ensure that our members have access to improved broadband infrastructure needed to create mobile apps that revolutionize the consumer and enterprise experiences for all Americans.

³ *Online Platforms and Market Power, Part 2: Innovation and Entrepreneurship: Hearing Before the H. Subcomm. On Antitrust, Commercial and Administrative Law*, 116th Cong. 2 (2019) (statement of Morgan Reed, President, ACT | The App Association). Available at <https://actonline.org/wp-content/uploads/Online-Platforms-and-Market-Power-Part-2-Innovation-and-Entrepreneurship-1.pdf>.

⁴ E.g., *Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, Second Report and Order, WC Docket No. 17-84 (2018). Available at <https://www.federalregister.gov/documents/2019/04/19/2019-07950/accelerating-wireline-broadband-deployment-by-removing-barriers-to-infrastructure-investment>; *Accelerating Wireless and Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, Declaratory Ruling, 3rd Report and Order, WT Docket 17-79, et al., 83 FR 51867 (2019). Available at <https://www.federalregister.gov/documents/2018/10/15/2018-22234/accelerating-wireless-and-wireline-broadband-deployment-by-removing-barriers-to-infrastructure>.

I. INCREASING BROADBAND INFRASTRUCTURE DEPLOYMENT IS NEEDED FOR THE CONTINUED GROWTH OF THE APP ECONOMY

The hyper-competitive app industry is the driving force behind the rise of smartphones, tablets, and a growing number of IoT internet-enabled devices across consumer and enterprise platforms. As detailed in the App Association's annual State of the App Economy report,⁵ U.S. companies lead the app economy and drive a thriving ecosystem worth more than \$1.3 trillion that will add 444,000 new app developer jobs to the American workforce by 2024.⁶ However, these developments are dependent upon the existence of a strong 5G network.

While there is no universal definition for a 5G mobile network, the term encompasses the future wave of interoperable mobile networks. 5G networks are expected to utilize a wide range of spectrum bands, both licensed and unlicensed, through new and innovative spectrum efficiencies and spectrum sharing arrangements. Standards bodies such as the 3GPP and IEEE, among many others, continue to develop the requirements.⁷ Similar to 5G, IoT will involve everyday products that use the internet to communicate data collected through sensors.⁸ With machine-to-machine devices projected to account for more than half of connected devices by 2021,⁹ IoT is expected to enable improved efficiencies in processes, products, and services

⁵ ACT | The App Association, *State of the App Economy*, 6th Edition (2018) (https://actonline.org/wp-content/uploads/ACT_2018-State-of-the-App-Economy-Report_4.pdf) (2018 App Economy Report).

⁶ *See id.*

⁷ *See* 3GPP, *The Mobile Broadband Standard, Tentative 3GPP Timeline for 5G* (Mar. 17, 2015), at http://www.3gpp.org/news-events/3gpp-news/1674-timeline_5g; *see also* IEEE Standards Association, Internet of Things, at <http://standards.ieee.org/innovate/iot/>.

⁸ *See, e.g.*, Department of Commerce Internet Policy Task Force and Digital Leadership Team, *Fostering the Advancement of the Internet of Things* (Jan. 2017), *available at* https://www.ntia.doc.gov/files/ntia/publications/iot_green_paper_01122017.pdf.

⁹ Stephanie Condon, *Report: IoT to Dominate Connected Device Landscape by 2021*, (June 8, 2017, 12:00 am) *found here:* http://www.zdnet.com/article/report-iot-devices-to-dominate-connected-device-landscape-by-2021/?mkt_tok=eyJpIjoiWkRBek5USmhNV1ZpTXpreiIsInQiOiJpOFV0Y214VHdGdmU5K2UrSmdhSXA0dUJCXC9laEFsMUpxYUmx0ZkxHUEZkM2RURzdFOTFRmYxbDRTR1REaVpldWtvMTFLeGFDTDJJaYUx0TnlRWjV6Y3JBc09kQ25vejczazBaRzVOd01JS1dnJb6dnYzY1pjMdBuNVdiUDVPQVEifQ%3D%3D

across every economic sector. Further, driven by a projected \$275 billion investment from telecom operators,¹⁰ 5G networks are expected to create 3 million new IoT-based jobs and boost annual U.S. gross domestic product by \$500 billion.

From agriculture to retail to healthcare, the rise of IoT is demonstrating efficiencies unheard of even a few years ago. However, broadband infrastructure is a prerequisite for its continued growth and job creation, especially for IoT app companies operating in rural areas. This proceeding is important for the app economy because 83 percent of U.S. app companies are located outside Silicon Valley, many in rural areas.¹¹ For example, App Association member Quantified AG is based just outside of Lincoln, Nebraska.¹² Quantified AG uses IoT technology to detect illness early and better in beef cattle. Using a non-invasive ear tag, Quantified AG enables cattle producers to address animal illness before it spreads. The biometric ear tags include sensors that transmit livestock data in real time and feature LED lights to help cattle producers quickly and easily identify sick animals. As Commission leadership has directly witnessed, Quantified AG's innovative service can only occur if it has robust broadband connectivity.¹³

The App Association applauds the Commission's recent steps to remove as many regulatory barriers as possible to advance more 5G deployment.¹⁴ U.S. infrastructure needs

¹⁰ Accenture, *Smart Cities: How 5G Can Help Municipalities Become Vibrant Smart Cities* (Jan. 2017), available at https://newsroom.accenture.com/content/1101/files/Accenture_5G-Municipalities-Become-Smart-Cities.pdf.

¹¹ ACT | The App Association, *State of the App Economy*, 5th Edition (2017). Available at https://actonline.org/wp-content/uploads/App_Economy_Report_2017_Digital.pdf.

¹² <https://quantifiedag.com/>.

¹³ See Matt Olberding, *Lincoln Firmer Quantified Ag Highlights Rural Internet Needs, Draws Visit from FCC Official*, Lincoln Journal Star (May 29, 2018). Available at https://journalstar.com/business/agriculture/lincoln-firm-quantified-ag-highlights-rural-internet-needs-draws-visit/article_7aba8360-31fe-5fcc-a040-115c6cab699a.html.

¹⁴ E.g., *Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, Second Report and Order, WC Docket No. 17-84 (2018). Available at <file:///Users/joelthayer/Downloads/DOC-350769A1.pdf>; *Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment*,

repair and improvement, and, as noted above, the App Association believes the Commission should play a central role in the deployment of robust internet infrastructure. Petitioners here provide the Commission with essential proposals to maintain U.S. leadership in the 5G IoT space.

II. GRANTING PETITIONERS' REQUESTS WILL ADVANCE THE COMMISSION'S BROADBAND DEPLOYMENT PRIORITIES, ASSIST IN CLOSING THE DIGITAL DIVIDE, AND ALLOW THE APP ECONOMY TO THRIVE IN RURAL AREAS

The petitions at issue promote widespread deployment of 5G and can even assist with encouraging carriers to deploy TVWS-enabled broadband. They do this by requesting the Commission to clarify specific parts of its rules and authority under Section 6409(a) of the Middle Class Tax Relief And Job Creation Act of 2012 (Spectrum Act) and Section 224 of the Communications Act. Petitioners requests will encourage carriers to enhance their wireless services and to add density to their networks via collocation techniques. Specifically, the App Association agrees with and suggests the following:

A. The Commission Should Clarify Key Terms in Section 6409(a) of the Spectrum Act so as to Encourage Collocation

In their petitions requesting declaratory relief, both WIA and CTIA tackle the issue of collocating on existing infrastructure and proffer sensible solutions to ameliorate those concerns. The App Association agrees that many localities' approach to broadband infrastructure deployment has been inconsistent with their obligations under Section 6409(a) of the Spectrum Act. Section 6409(a) requires states and localities to approve "any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the

Declaratory Ruling, Report and Order, 33 FCC Rcd 9088 (2018). Available at file:///Users/joelthayer/Downloads/FCC-18-133A1_Rcd.pdf.

physical dimensions of such tower or base station.”¹⁵ The material ambiguity here is what constitutes a “substantial change” to a particular tower or base station, which Congress left to the Commission to define.

As it relates to Section 6409(a) petitions for declaratory judgment, both the WIA Declaratory Ruling Petition and CTIA Petition generally cite to key places where the Commission can address some of the looming ambiguity that stunts network providers’ ability to deploy networks.¹⁶ At the heart of the Petitioners’ requests is a record demonstrating numerous state and local authorities having either intentionally or inadvertently circumvented their obligations under Section 6409(a).¹⁷ Such authorities accomplished this by either adding unnecessary requirements and measures to their permitting processes or simply lacking procedures to resolve Eligible Facilities Requests (EFRs).¹⁸

¹⁵ 47 U.S.C § 1455(a)(1).

¹⁶ See WIA Declaratory Ruling Petition at p. 4 (urging the Commission to clarify “that (i) Section 6409(a) and the implementing regulations apply to all state and local authorizations required to deploy new or replacement transmission equipment on existing wireless towers or base stations; (ii) the Section 6409(a) shot clock begins to run when an applicant makes a good faith attempt to request local approval; (iii) the substantial change criteria in Section 1.6100(b)(7) of the Commission’s rules should be narrowly interpreted; (iv) “conditional” approvals of eligible facilities requests (“EFRs”) violate Section 6409(a); and (v) localities may not establish processes or impose conditions that effectively defeat or reduce the protections afforded under Section 6409(a).”); see also, CTIA Petition at p. 10 (requesting “the Commission take the following actions to clarify which deployments qualify for streamlined processing and the remedies available under 6409(a): [] Concealment Requirements. The Commission should clarify that the term “concealment element” in its rules applies only to a stealth facility or design element and that concealment requirements may not be used to disqualify an application as an eligible facilities request (“EFR”). [;] Equipment Cabinets. The Commission should clarify that the term “equipment cabinet” in its rules means cabinets that are placed on the ground or elsewhere on the premises, and does not include equipment attached to the structure itself, which is covered by other parts of the rule [;] Modifications to Non-Tower Structures. The Commission should clarify that the entire structure or building is the “base station” being modified, and that the structure’s size determines if the modification qualifies as an EFR[;] Failure to Act. The Commission should clarify that if a siting authority fails to timely act on an application for an EFR under 6409(a), and the application is thus deemed granted, applicants may lawfully construct even if the locality has not issued related permits.”).

¹⁷ See Letter from Kenneth J. Simon & Monica Gambino, Crown Castle International Corp., to Marlene Dortch, Secretary, FCC, WT Docket Nos. 17-79 & 16-421 (filed Aug. 10, 2018) at 11 (noting that some jurisdictions deny EFR permits based off the Commission’s “existing concealment” exceptions under 47 C.F.R. § 1.6100(b)(7)(v)).

¹⁸ See WIA Declaratory Ruling Petition at n. 27.

These actions from states and localities produce significant inefficiencies for providers to deploy networks, especially in rural areas that largely depend on macro sites to get their wireless access.¹⁹ This is especially harmful for developers relying on TVWS-enabled broadband because such TVWS technologies will leverage, in part, existing macro sites to broadcast signals to far-ranging customers that would otherwise be unreachable by traditional wireless network schemes. We agree with the Petitioners that collocation will be an essential feature to ensure that no person falls on the wrong side of the digital divide and the relief sought by the Petitioners would take appropriate steps on that front.²⁰ By delaying the deployment of infrastructure, these states and municipalities only limit market access to our members and what's more their constituents miss out on our members' innovative products and services.

B. The Commission Should Act to Ensure Section 6409(a) Provides for a 30-Foot Compound Expansion for Collocation Schemes

The App Association supports the FCC's initiating a rulemaking to eliminate ambiguity in its regulations under Section 6409(a) so as to comport with how today's wireless networks operate in the contemporary economy. The Commission is well within its rights to modernize its rules for purposes of fulfilling Congress's intent,²¹ and Congress has given the Commission

¹⁹ Lily Lieberman, *How the Permitting Process Could Affect Rollout of 5G*, Kansas City Business Journal (Apr. 2, 2019, 9:16 AM). Available at <https://www.bizjournals.com/kansascity/news/2019/04/02/5g-small-cell-local-permitting-challenges.html> (Quoting Joe Madden, founder of Mobile Experts, Inc., saying "'Every city that you go to has a different process. There's a different form you have to fill out and a different person that needs to sign off. It's extremely fragmented and there's no single formula to follow. You can end up needing multiple permits and agreements with multiple people to make it all happen. That's where the challenges come[.]'").

²⁰ Letter from Richard Rossi, Senior Vice President, General Counsel-U.S. Tower & Mneesha Nahata, Vice President, Corporate Legal Finance and Risk Management, American Tower Corporation, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 17-79, at 2 (Aug. 10, 2018).

²¹ *E.g.*, *Montgomery County v. FCC*, 811 F.3d 121 (4th Cir. 2015).

broad discretion to streamline or modify its rules in the event they no longer “serve the public interest in its current form.”²²

The Commission’s current rules, in practice, permit state and municipal agencies to treat a minor collocation as a substantial change. This creates confusion in the market and results in unreasonable denials of EFR status to tower owners, thus, excluding those applicants from various Section 6409(a) protections.²³ Without such protections, some state and local agencies have enforced requirements increasingly unconnected to the public interest, which, at times, serve as a measure to extract maximum revenue from those deploying broadband infrastructure. Some egregious examples include state and municipal authorities requiring tower owners to pay additional fees for nominal compound expansions (sometimes as minor as five feet).

This effect is especially problematic for those carriers seeking to close the digital divide using TVWS in rural areas because tower owners need that extension to house external equipment necessary to make the antenna functional. As the Commission is aware, collocating is not as simple as attaching an antenna to a structure. It sometimes requires the tower company to add extra equipment to compensate for the added power required to broadcast the signal; thus, more space for that necessary equipment is essential for those antennae to be functional.²⁴ Absent Commission action on this issue, localities will continue to drive up costs for wireless carriers, especially for wireless internet service providers (WISPs) seeking to augment their signals via collocation techniques. If local governments continue to force tower owners to seek

²² *Biennial Regulatory Review - Amendment of Parts 1, 22, 24, 27, and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services*, Report and Order and Further Notice of Proposed Rulemaking, 20 FCC Rcd 13900, 13903 (2005).

²³ See WIA Rulemaking Petition.

²⁴ See Letter from Joshua S. Turner, Counsel to Crown Castle International Corp., to Marlene H. Dortch, Secretary, FCC, WT Docket No. 17-79 at 2 (Aug. 28, 2017).

permits for nominal compound expansions so as to accommodate an antenna's correlated transmission equipment, it can make collocation prohibitively expensive and serve as a disincentive for tower owners to engage with WISPs and other carriers using TVWS. Increasingly, there is not enough space within a tower site to accommodate the equipment needed for next-generation networks, and the relief requested by Petitioners would provide clarity and certainty for all stakeholders in that regard.

As we have noted in other filings, the Commission has recognized the value unlicensed TVWS bands have to the internet ecosystem.²⁵ Chairman Ajit Pai congratulated WISPs on developing "TV white space solutions that help[ed] WISPs extend their reach."²⁶ These TVWS-enabled solutions can only continue to be realized if the Commission develops and facilitates a sensible regulatory framework. Providing the relief requested in WIA's petitions is critical because collocation is a necessity to promote these innovative techniques that provide broadband to those who might otherwise not have it.

If the Commission does not grant the WIA Rulemaking Petition, then it will have missed a crucial opportunity to break free from the status quo that permits states and localities to impose significant costs on carriers attempting to collocate TVWS devices and 5G antennae on existing towers. This ultimately stalls carriers from deploying the necessary infrastructure needed to build out fast, reliable networks, running afoul of Congress's intent in Section 6409(a).²⁷ For the App Association, advancing these petitions is a critical component to promote the deployment of

²⁵ See, Ajit Pai, Commissioner, FCC, Remarks at WISPapalooza (Oct. 15, 2014), available at https://apps.fcc.gov/edocs_public/attachmatch/DOC-329969A1.pdf (hereinafter WISPAPOLOOZA SPEECH).

²⁶ See *id.*

²⁷ See *Accelerating Wireless Broadband Deployment by Improving Wireless Facilities Siting Policies*, Report and Order, 29 FCC Rcd 12865, 12931 (2014) (identifying that Section 6409(a) of the Spectrum Act sought "to facilitate collocation in order to advance the deployment of . . . broadband services...").

needed broadband infrastructure which IoT developers rely on to introduce efficiencies into new consumer and enterprise verticals.

C. The App Association Supports the Commission Clarifying the Definition of a “Pole” under Section 224

CTIA requests clarity of Section 224 of the Communications Act.²⁸ All of these requested clarifications are important to advance the Commission’s stated goals to promote 5G deployment expeditiously. As it relates to Section 224, CTIA seeks clarification on the definition of a “pole” by augmenting the Commission’s definition to include light poles. This clarification will promote the widespread deployment of small cells in cities by providing clarity to state and local authorities, and promoting predictability and certainty in their processes. The App Association agrees that such a clarification would meaningfully contribute to the Commission’s goal of broader and expedited 5G infrastructure deployment.

²⁸ See generally, CTIA’s Petition.

III. CONCLUSION

For the reasons above, the App Association urges the Commission to consider our views and data provided herein.

Sincerely,

/s/ Joel Thayer

Joel Thayer
Policy Counsel

ACT | The App Association
1401 K St NW (Ste 501)
Washington, DC 20005

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